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AMENDMENT TO THE CLAIMS

1. (Currently amended) A motor controller comprising:

an inverter circuit for driving a brushless motor; [[and]]

a control unit for detecting rotational speed fluctuation of a brushless motor caused by load torque fluctuation and controlling a phase and an amplitude of a motor current of the brushless motor so as to restrict said rotational speed fluctuation via the inverter circuit; and

a rectifier for rectifying an a.c. power output from an a.c. power source to output to the inverter circuit,

wherein the control unit controls the amplitude of the motor current according to an absolute value of an output voltage of the a.c. power source such that a current flowing in the brushless motor becomes small during a period when the absolute value of the output voltage of the a.c. power source increases and becomes great during a period when the absolute value of the output voltage of the a.c. power source decreases.

2-7. (Cancelled)

8. (Original) The motor controller according to claim 1, further comprising a capacitor interposed between d.c. power input terminals of the inverter circuit.

9-12. (Cancelled)

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13. (Currently amended) A motor controller comprising:

a power converter for converting an a.c. power output from an a.c. power source into a d.c. power;

an inverter circuit for supplying the d.c. power obtained through the conversion by use of the power converter to a brushless motor, thereby driving the brushless motor;

a capacitor connected between d.c. power input terminals of the inverter circuit; and

a control unit for controlling the rotational speed of the brushless motor by controlling the motor current of the brushless motor ~~through the inverter circuit~~,

wherein the control unit controls the motor current via the inverter circuit so as to restrict the rotational speed fluctuation of the brushless motor caused by load torque fluctuation and controls a current output from the a.c. power source to the power converter based on the comparison between the amplitude of the motor current and the average of the motor current.

14. (Previously presented) The motor controller according to claim 13, wherein the control unit controls the current output from the a.c. power source such that during the period when the amplitude of the motor current is smaller than the average of the motor current, the capacitor is charged, and during the period when the amplitude of the motor current is larger than the average, the capacitor discharges electricity.

15. (Previously presented) The motor controller according to claim 14, wherein the power converter is a rectifier, wherein a switching element is serially connected to the capacitor between the d.c. power input terminals of the inverter circuit, and wherein the control unit controls the current output from the a.c. power source by turning the switching element ON and OFF.

16. (Previously presented) The motor controller according to claim 14, wherein the control unit controls the current output from the a.c. power source such that during the period when the amplitude of the motor current is smaller than the average of the motor current, said amplitude decreases, and during the period when the amplitude of the motor current is larger than the average of the motor current, said amplitude increases.

17. (Previously presented) The motor controller according to claim 13, wherein the control unit controls the phase of the motor current so as to restrict the rotational speed fluctuation of the brushless motor caused by load torque fluctuation.

18. (Previously presented) The motor controller according to claim 1, wherein the brushless motor drives a load the torque of which fluctuates so as to have one peak per rotation of the brushless motor.

19. (Previously presented) A compressor having the brushless motor controlled by the motor controller of claim 18, as a driving source.

20. (Previously presented) An air conditioner having the compressor of claim 19, as refrigerant compressing means.

21. (Previously presented) A refrigerator having the compressor of claim 19, as refrigerant compressing means.